

- 1. (currently amended) A hybrid speech encoder, comprising:
- (a) a linear prediction, pitch, and, voicing analyzer;
- (b) a parametric encoder coupled to said analyzer; and
- (c) a waveform encoder coupled to said analyzer; and
- (d) wherein said waveform encoder includes a zero-phase equalization filter.
- 2. (currently amended) The encoder of claim 1, wherein:
- (a) (e) said zero-phase equalization filter has coefficients determined by said analyzer.
- 3. (currently amended) A hybrid speech decoder, comprising:
- (a) a linear prediction synthesizer;
- (b) a parametric encoder coupled to said analyzer; and
- (c) a waveform decoder coupled to said synthesizer; and
- (c) wherein said waveform decoder decodes zero-phase equalized weakly-voiced frames time-synchronized with parametric decoder decoded strongly-voiced frames.
- 4. (currently amended) A speech encoder, comprising:
- (a) a linear prediction, pitch, and, voicing analyzer; and
- (b) a waveform encoder coupled to said analyzer; and
- (c) wherein said waveform encoder includes a zero-phase equalization filter.